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ABSTRACT

This report summarizes a selection of school system characteristics and performance indicators collected since the 1991-92 school year for the Wake County Public School System (WCPSS), North Carolina, and comparable local education agencies (LEAs) in North Carolina. Data are presented in figures to reveal longitudinal trends in the Wake County system and comparisons of Wake County's schools with other LEAs. Per pupil expenditures in the WCPPS were lowest among all comparison LEAs for every year in the 1990s. Student dropout rates in the WCPSS remained the lowest among comparison LEAS throughout the period studied. Student population growth in the WCPSS exceeded that of all comparison LEAs for every year in the 1990s. Overall, Wake County students posted the strongest academic performance among all comparison LEAs, and steady gains were made throughout the 1990s. The report identifies some areas of relative strength and weakness in academic performance for Wake County students. (SLD)

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WAKE COUNTY PUBLIC SCHOOL SYSTEM

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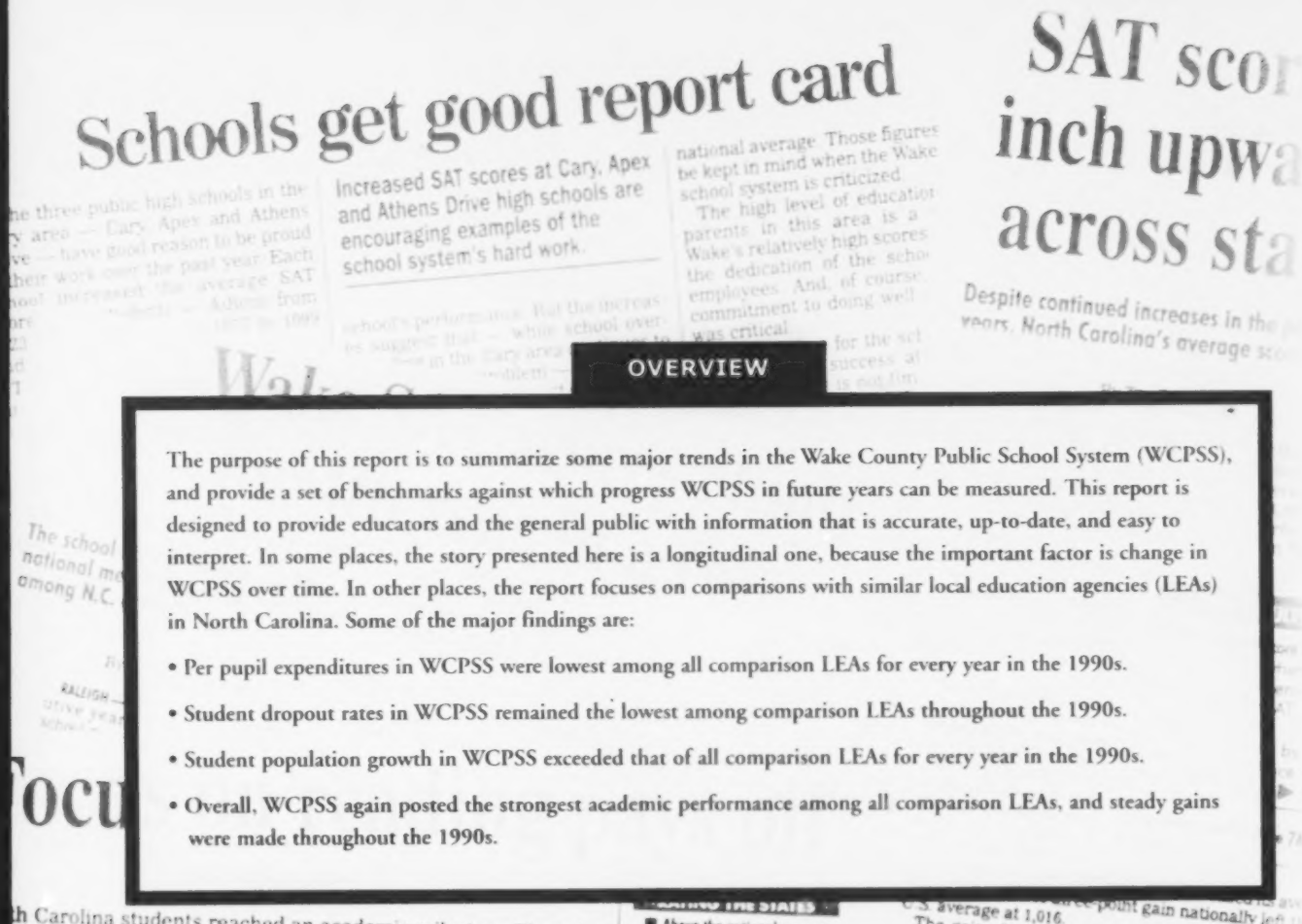
WAKE COUNTY PUBLIC SCHOOL SYSTEM



Schools get good report card

Increased SAT scores at Cary, Apex and Athens Drive high schools are encouraging examples of the school system's hard work.

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Despite continued increases in the
years, North Carolina's average sco

OVERVIEW

The purpose of this report is to summarize some major trends in the Wake County Public School System (WCPSS), and provide a set of benchmarks against which progress WCPSS in future years can be measured. This report is designed to provide educators and the general public with information that is accurate, up-to-date, and easy to interpret. In some places, the story presented here is a longitudinal one, because the important factor is change in WCPSS over time. In other places, the report focuses on comparisons with similar local education agencies (LEAs) in North Carolina. Some of the major findings are:

- Per pupil expenditures in WCPSS were lowest among all comparison LEAs for every year in the 1990s.
- Student dropout rates in WCPSS remained the lowest among comparison LEAs throughout the 1990s.
- Student population growth in WCPSS exceeded that of all comparison LEAs for every year in the 1990s.
- Overall, WCPSS again posted the strongest academic performance among all comparison LEAs, and steady gains were made throughout the 1990s.

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UNDERSTANDING DATA ANALYSES IN THIS REPORT

This report summarizes a selection of school system characteristics and performance indicators collected since the 1991-92 school year for the Wake County Public School System (WCPSS) and comparable local education agencies (LEAs) in North Carolina. LEAs that are compared to WCPSS include:

- **Durham**
- **Winston-Salem/Forsyth**
- **Guilford**
- **Charlotte-Mecklenburg**

The LEAs being compared to WCPSS are large school districts that have been described as similar in nature to WCPSS. Using data from the 1990 Census, the North Carolina Department of Public Instruction indicates there is similarity among these districts on variables such as:

- the percentage of working parents of 6-17 year-olds;
- the percentage of 6-17 year olds below the poverty level;
- the educational attainment of residents in the LEA; and
- the average household income.

The data in this report are presented in figures to reveal:

- longitudinal trends in WCPSS from the 1991-92 through the 1997-98 school year; and
- comparisons of WCPSS with other LEAs over this same period.

Instructions for interpreting many of the figures in this report are provided in the example below.

INTERPRETING FIGURES IN THIS REPORT

An Example

This figure, depicting real data for the Economics, Law, and Politics (ELP) end-of-course (EOC) exam, is similar to many of the figures that appear in this report. Within the figure, the **dots and numerical values** indicate the values for WCPSS, while the **striped bars** indicate the values for the other LEAs being compared to WCPSS, ranging from the LEA with the lowest value to the LEA with the highest value in each year being reported.

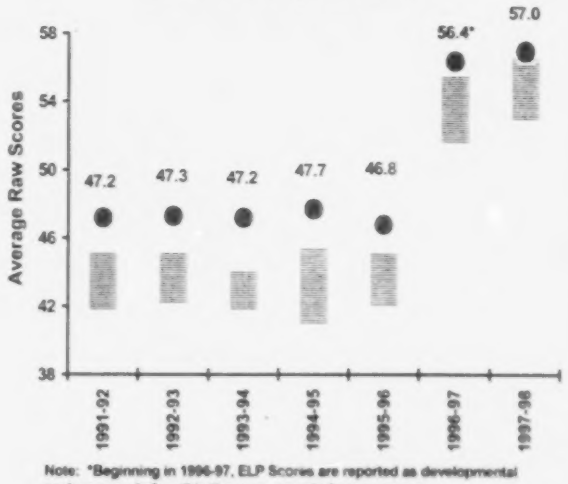
The comparison LEAs differ for some of the years because schools in Durham and Guilford counties did not merge into county-wide systems until the 1992-93 and 1993-94 years, respectively. Comparisons with WCPSS for all figures in this report are as follow:

- 1991-92: Forsyth and Mecklenburg
- 1992-93: Durham, Forsyth and Mecklenburg
- 1993-94 through 1997-98: Durham, Forsyth, Guilford and Mecklenburg

All sources of data are referenced at the end of this report.

WCPSS scores on the ELP EOC exam exceeded those in all other comparison LEAs throughout the 1990s.

Figure 1
ELP EOC Average Scores:
WCPSS and Comparable LEAs



Note: *Beginning in 1996-97, ELP Scores are reported as developmental scale scores; before this they were reported as raw scores.

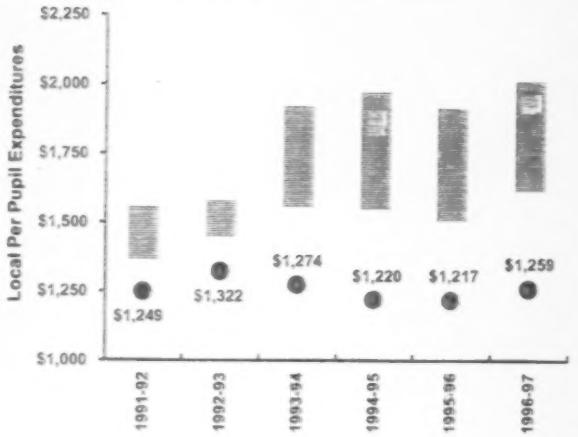
SCHOOL SYSTEM CHARACTERISTICS

LOCAL PER PUPIL EXPENDITURES

Local per pupil expenditures in WCPSS have been below all other comparison LEAs throughout the 1990s.

Local per pupil expenditures have always been below that of any of the comparison LEAs throughout the 1990s. In the mid-1990s, WCPSS per pupil expenditures began to decline, putting them even further below those of the comparison LEAs. Although the WCPSS per pupil expenditure increased slightly in 1996-97, it remained well below those of the comparison LEAs.

Figure 2
Local Per Pupil Expenditures Excluding Child Nutrition:
WCPSS and Comparable LEAs

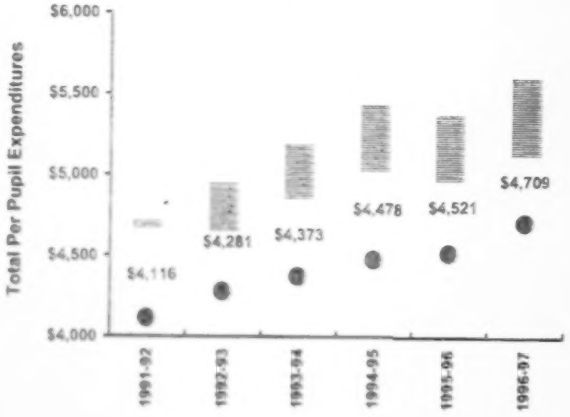


TOTAL PER PUPIL EXPENDITURES

The total of federal, state, and local per pupil expenditures in WCPSS has been below all other comparison LEAs throughout the 1990s.

When all sources of revenue are combined, the total of federal, state, and local per pupil expenditures has also been below that of comparison LEAs throughout the 1990s. Each year in the WCPSS, the percentage increase in total expenditures over the year before has been less than 5%.

Figure 3
Total Federal, State, and Local
Per Pupil Expenditures Excluding Child Nutrition:
WCPSS and Comparable LEAs

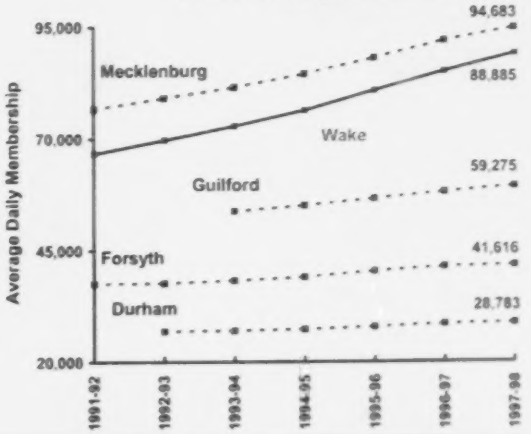


POPULATION GROWTH

Student population growth in WCPSS exceeded all other comparison LEAs throughout the 1990s.

WCPSS is the second largest school district in the state. It has steadily grown throughout the 1990s, and the growth in average daily membership (ADM) over this period has exceeded that of any comparison LEA. Every year in the 1990s, WCPSS has added more students to its population than has Mecklenburg County, the largest school district in the state. Between 1991-92 and 1997-98, WCPSS experienced a 33.4% growth in first month ADM.

Figure 4
Growth in First Month ADM:
WCPSS and Comparable LEAs

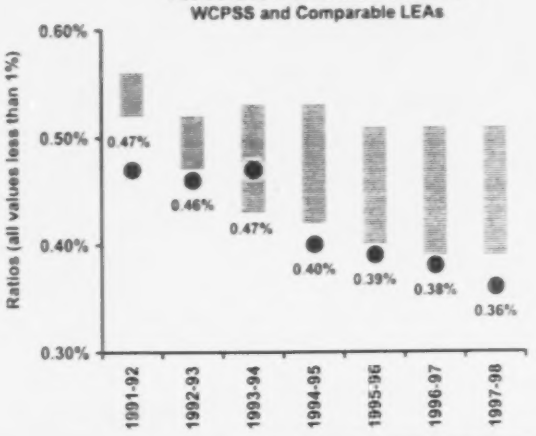


ADMINISTRATOR, SUPERVISOR, AND CONSULTANT POSITIONS

The ratio of administrator, supervisor, and consultant positions to student enrollment in WCPSS has been the lowest among comparison LEAs in six of seven years.

While the student population in WCPSS has increased 33.4% since 1991-92 and many new schools have opened, the ratio of administrator, supervisor, and consultant positions to first month student enrollment has fallen 23.4%. The trend is for the ratio to decrease or remain the same in comparison LEAs, and WCPSS leads the group in declining ratios.

Figure 5
Ratio of Administrator/Supervisor/Consultant
Positions to First Month Enrollment:
WCPSS and Comparable LEAs

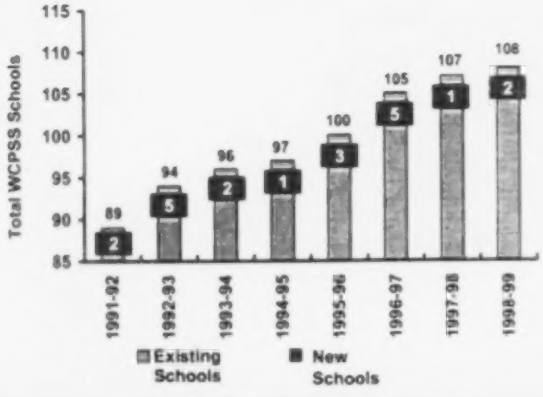


WCPSS SCHOOL CONSTRUCTION

Twenty-two new schools have opened in WCPSS since the 1990-91 school year.

In WCPSS, there were 84 regular schools and 3 alternative schools operating in the 1990-91 year. In the eight years since then, WCPSS has opened 22 new schools, not counting replacement schools. Two new schools opened in 1998-1999 bringing the total to 108 schools; 70 elementary schools, 20 middle schools, 14 high schools, and 4 alternative schools. More new schools are planned to open in the 21st century.

Figure 6
Growth in Number of WCPSS Schools



RACIAL COMPOSITION

All racial groups in WCPSS increased their numbers during the 1990s; Hispanic students increased at the fastest rate.

Between 1991-92 and 1997-98, the Hispanic student population increased by 286%; Asian-American students by 81%; Native-American students by 53%; Caucasian students by 34%, and African-American students by 33%. The dramatic increases in the Hispanic and Asian-American student groups affect instructional programs such as English as a Second Language.

Figure 7
Enrollment of WCPSS Students by Race and Year

Race \ Year	91-92	92-93	93-94	94-95	95-96	96-97	97-98
Caucasian	46,359	48,337	50,492	52,921	55,702	58,102	59,846
African-Am	18,142	19,021	19,774	20,477	21,489	22,700	24,098
Asian-Am	1,650	1,797	1,860	2,033	2,320	2,659	2,986
Hispanic	621	759	931	1,202	1,563	1,908	2,394
Native-Am	143	136	135	157	198	193	219

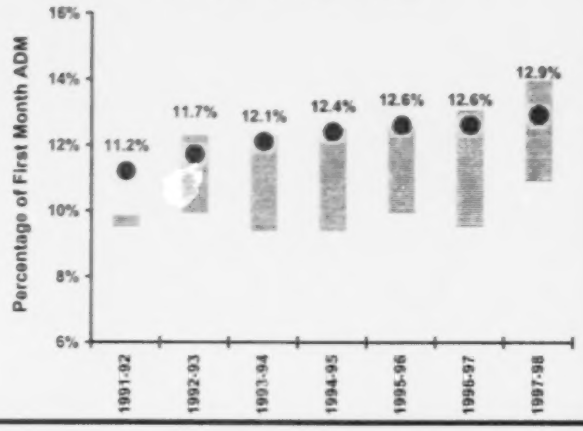
STUDENTS WITH DISABILITIES

The percentage of WCPSS students with disabilities was at the upper range of values among comparison LEAs, and increased every year in the 1990s.

In WCPSS, there were 7,448 students with disabilities in the 1991-92 school year, and 11,422 such students in the 1997-98 year. The number of WCPSS students with disabilities in 1997-98* was 53.4% greater than in the 1991-92 year.

*Unduplicated count of children ages 3-21 as of December 1, 1997. Students with disabilities have Individual Education Plans (IEPs) and are eligible for federal funds (Title VI-B).

Figure 8
Students with Disabilities as a Percentage of First Month ADM: WCPSS and Comparable LEAs

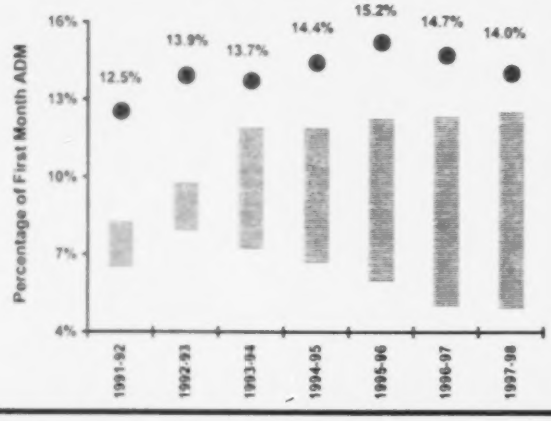


ACADEMICALLY GIFTED STUDENTS

The percentage of WCPSS students classified as academically gifted exceeded the highest values among comparison LEAs throughout the 1990s.

In WCPSS, there were 8,300 academically gifted (AG) students in the 1991-92 year, and 12,459 such students in the 1997-98 year. The number of WCPSS students classified AG in 1997-98 was 50% greater than in the 1991-92 year.

Figure 9
AG Students as a Percentage of First Month ADM: WCPSS and Comparable LEAs



PERFORMANCE INDICATORS ELEMENTARY AND MIDDLE SCHOOL GRADES 3-8

FOURTH AND SEVENTH GRADE WRITING TEST SCORES

Fourth and seventh grade writing test scores in WCPSS have been inconsistent over time—sometimes better than comparable LEAs and sometimes worse—but the test scores increased in 1997-98.

In North Carolina, the 4th and 7th grade writing tests are elements in the state's ABC Accountability Model for elementary and middle schools, along with the end-of-grade reading and mathematics exams. The writing test was first conducted in 4th grade during the 1992-93 year, and in 7th grade during the 1995-96 year. On a scale of 1 to 4, writing test scores of 2.5 or better are considered to be at or above grade level performance.

Scores on the writing tests have been inconsistent over time in both the state and WCPSS, suggesting some difficulty with establishing valid and reliable scoring rubrics; however, state scores are beginning to stabilize. In WCPSS, 4th grade writing test scores improved in the first three years of test administration, fell the next two years, but improved in 1997-98. Seventh grade WCPSS writing test scores also fell in the 1996-97 year, but improved in 1997-98.

The earlier decline in WCPSS writing test scores was reversed in 1997-98, and WCPSS continues to conduct extensive training with teachers on instructional practices and scoring rubrics.

Figure 10
Fourth Grade Writing Test Scores of 2.5 or Better: WCPSS and Comparable LEAs

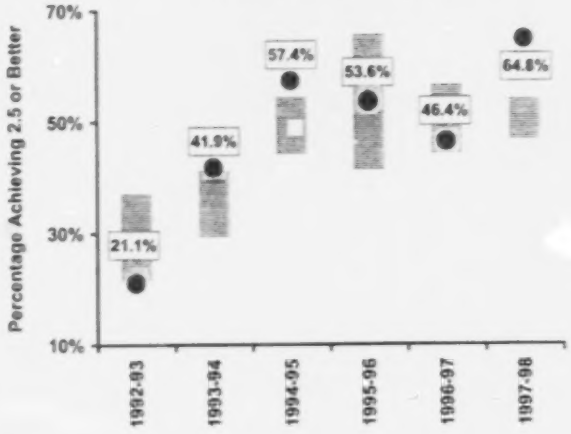
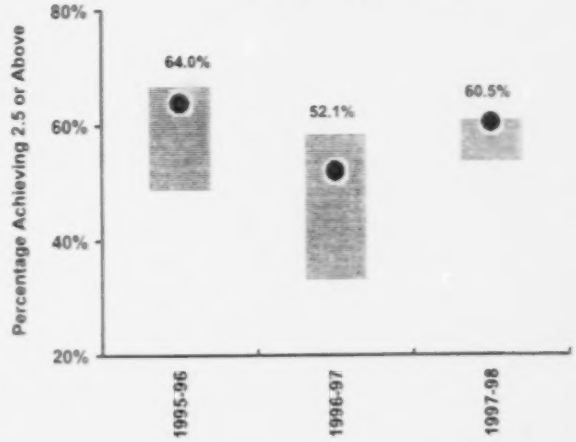


Figure 11
Seventh Grade Writing Test Scores of 2.5 or Better: WCPSS and Comparable LEAs



END-OF-GRADE READING TEST SCORES

WCPSS scores on the 1997-98 end-of-grade reading test exceeded those of all comparison LEAs in five of six grade levels. Within WCPSS, developmental scale scores have been climbing over time at each grade level, and over three fourths of students at all grade levels demonstrate mastery of subject matter.

The end-of-grade (EOG) tests for reading are scaled developmentally so that scores are expected to rise with each passing year. This developmental pattern is evident in *Figure 12* which shows that WCPSS performed better than any of the comparison LEAs at all but one grade level in the 1997-98 year.

Figure 13 depicts how the average EOG reading developmental scale scores have been steadily climbing in WCPSS over time. Scores at all grade levels were higher in 1997-98 than in 1993-94. While scores at 6th grade remained the same in 1997-98, scores at all other grades were the highest ever.

The EOG reading and mathematics tests are also scored for four achievement levels: I, II, III and IV, with levels III and IV indicating subject mastery at or above grade level. *Figure 14* shows that in the last three years, three fourths or more of all students in grades 3-8 performed at or above grade level on the EOG reading test. This percentage has reached 80% or higher a number of times, as in 1997-98. Eighth grade students have consistently been the strongest performers. Achievement at Level III or IV on the 8th grade EOG reading and math tests is now a graduation requirement in North Carolina.

Figure 12
1997-98 EOG Reading Average Developmental Scale Scores: WCPSS and Comparable LEAs

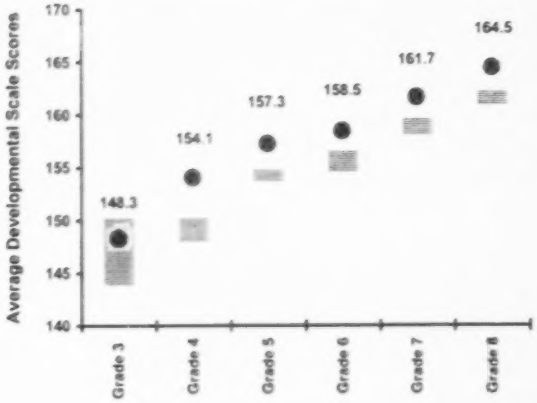


Figure 13
WCPSS EOG Reading Average Developmental Scale Scores: 1993-94 through 1997-98

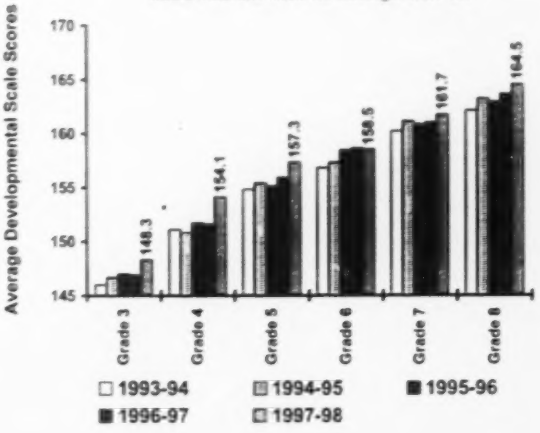
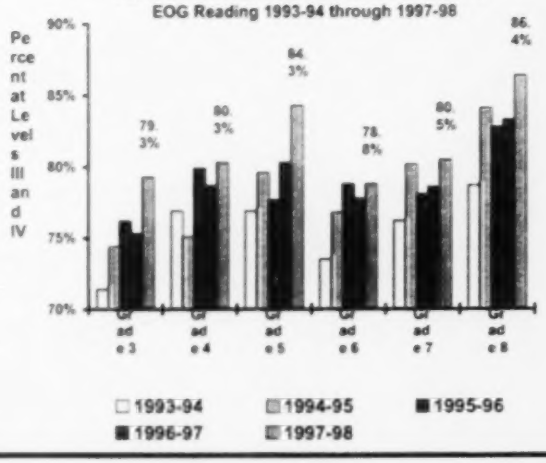


Figure 14
Percent of WCPSS Students at Levels III and IV: EOG Reading 1993-94 through 1997-98



END-OF-GRADE MATHEMATICS TEST SCORES

WCPSS scores on the 1997-98 end-of-grade math test exceeded those of all comparison LEAs at every grade level, 3-8. Within WCPSS, developmental scale scores have been climbing over time at each grade level, and 75-84% of students at all grade levels demonstrate mastery of subject matter.

The EOG examinations for mathematics are scaled developmentally so that scores are expected to rise with each passing year. This developmental pattern is evident in *Figure 15* which shows that WCPSS performed better than any of the comparison LEAs at all grade levels in the 1997-98 year.

Figure 16 depicts how the average EOG math developmental scale scores have been steadily climbing in WCPSS over time. Scores at all but 3rd grade were higher in 1997-98 than in 1993-94, and scores at grades 4-8 in 1997-98 were the highest ever.

Figure 17 indicates that in the last two years, three fourths or more of all students in grades 3-8 performed at or above grade level on the EOG math test. Every grade except 3rd grade reached 80% or higher in the 1997-98 year. Students in grades 5-8 made a dramatic improvement, and 4th grade students performed at an even higher level than in 1996-97.

Figure 15
1997-98 EOG Math Average Developmental Scale Scores: WCPSS and Comparable LEAs

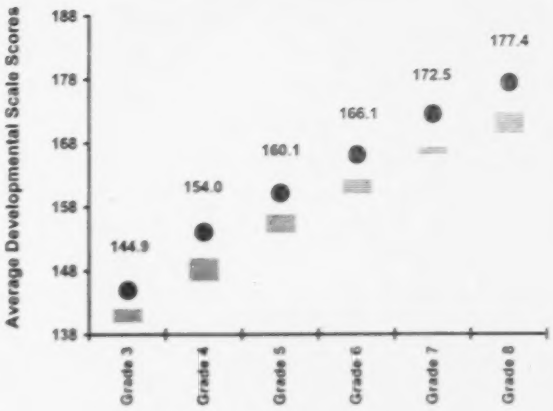


Figure 16
WCPSS EOG Math Average Developmental Scale Scores: 1993-94 through 1997-98

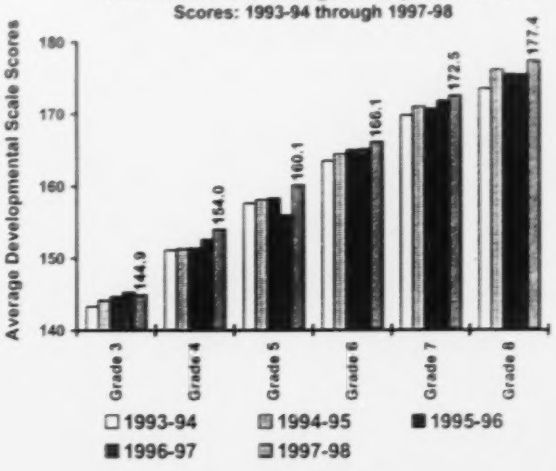
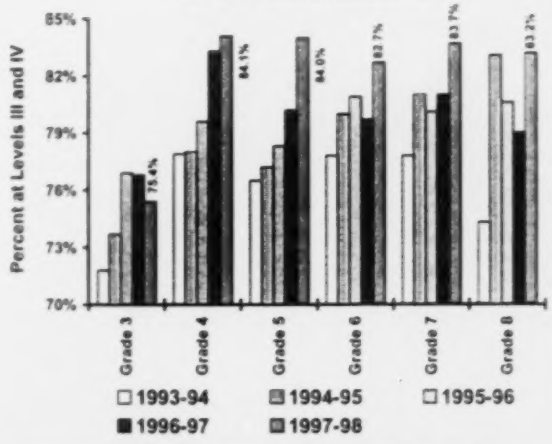


Figure 17
Percent of WCPSS Students at Levels III and IV: EOG Math 1993-94 through 1997-98



PERFORMANCE INDICATORS HIGH SCHOOL GRADES 9-12

END-OF-COURSE TESTS

WCPSS high school students performed better than students in comparable LEAs on end-of-course tests in core subject areas: Algebra I, Biology, U.S. History, English I, and Economics, Law and Politics.

In the 1997-98 school year, the North Carolina Department of Public Instruction began to factor results on these five end-of-course (EOC) tests into the state's ABC Accountability Model for high schools.

Figure 18
Algebra I EOC Examination:
WCPSS and Comparable LEAs

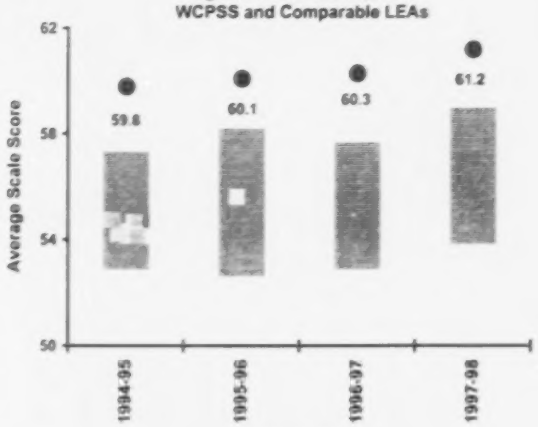


Figure 19
Biology EOC Examination:
WCPSS and Comparable LEAs

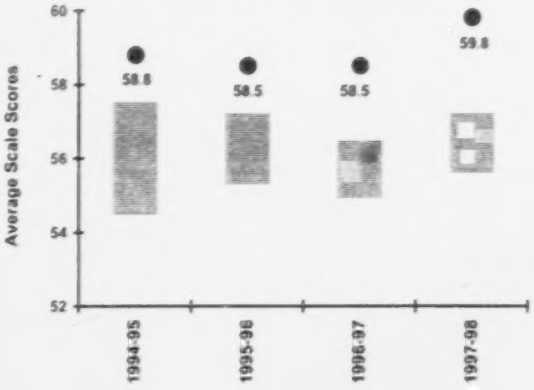


Figure 20
U.S. History EOC Examination:
WCPSS and Comparable LEAs

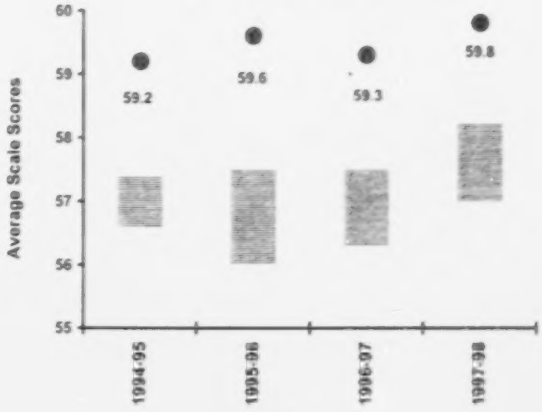


Figure 21
English I EOC Examination:
WCPSS and Comparable LEAs

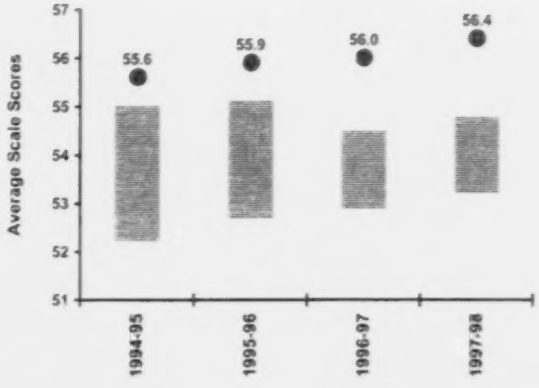
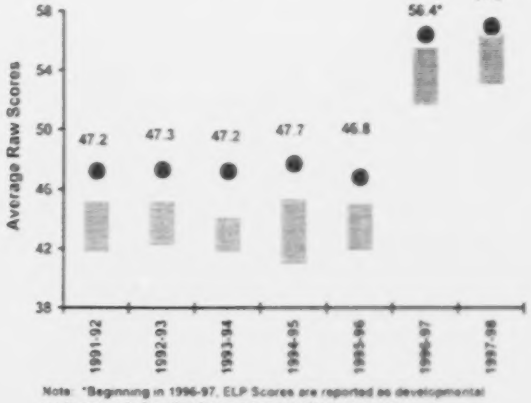


Figure 1
ELP EOC Average Scores:
WCPSS and Comparable LEAs



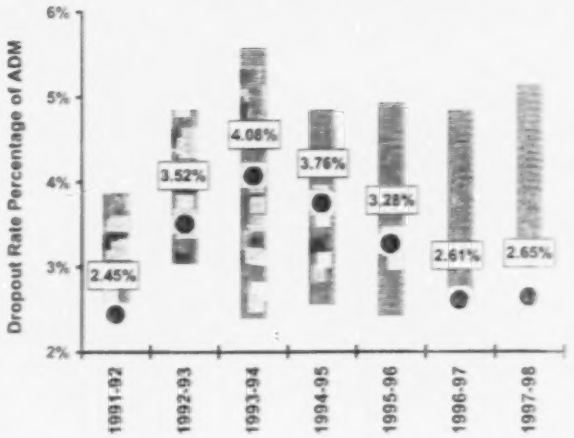
Note: *Beginning in 1996-97, ELP Scores are reported as developmental scale scores; before this they were reported as raw scores.

GRADES 7-12 DROPOUT RATE

The dropout rate in WCPSS for grades 7-12, once in the mid-range of values among comparable LEAs, is now below that of comparable LEAs.

For high schools, the dropout rate is another element that will be included in the ABC Accountability Model. The WCPSS dropout rate fluctuated in the 1990s: increased two years, fell for three years, and remained about the same in 1997-98. Improvement in the dropout rate occurred despite an increasing student population base, stricter enforcement of out-of-school suspension rules, and a strong local economy (which can lure students who desire employment to leave school).

Figure 22
Grades 7-12 Dropout Rate:
WCPSS and Comparable LEAs

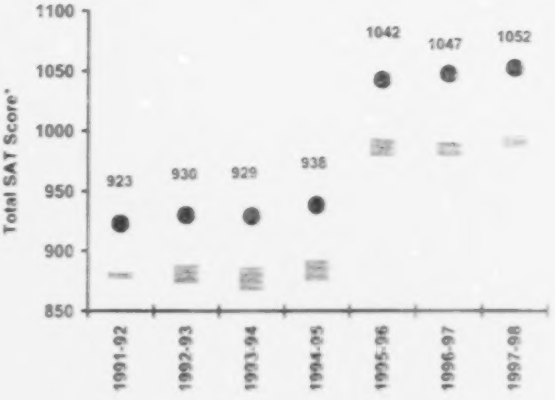


SAT RESULTS

SAT scores in WCPSS exceeded those in comparable LEAs every year in the 1990s, with increases in every year except one.

The percent of WCPSS students participating in the SAT exam has been steady throughout the 1990s, ranging between 73% and 76%. Percent participation is an important variable when comparing performance across states or LEAs. States and LEAs with high percent participation tend to have lower average scores than those with lower percent participation. While testing a very high percentage of students, the WCPSS average score of 1052 for the total SAT in 1997-98 was above the national average of 1017. In all of North Carolina, only one relatively small LEA--Chapel Hill City with about 8,500 students--tested as high a percentage of students as WCPSS and earned higher SAT scores than WCPSS in 1997-98.

Figure 23
Scholastic Aptitude Test:
WCPSS and Comparable LEAs



Note: * SAT scores were recentered after April 1995 to realign the verbal and math sections, and put the average score for the total battery near 1000.

SUMMARY

Overall, WCPSS is academically the strongest among the comparable LEAs in North Carolina, despite growing faster and spending less per pupil. WCPSS also has a lower dropout rate and a lower ratio of administrator, supervisor, and consultant positions than any of the comparison LEAs.

Areas where WCPSS exhibited relative academic strengths in 1997-98:

- EOG performance in reading and math;
- EOC performance in core courses;
- Low dropout rate being maintained; and
- SAT performance improving.

Areas where WCPSS exhibited relative academic weaknesses in 1997-98:

- EOG writing performance in grade 7;
- EOG math performance at grade 3; and
- ELP scores not rising as quickly as comparable districts.

WCPSS students have achieved high test scores which have gradually improved during the 1990s. As the system works to achieve the goal of 95% of 3rd and 8th graders scoring at or above grade level by 2003, improvement will need to accelerate. The gradual gains of recent years will not reach the 2003 goal. WCPSS will need to support existing personnel with staff development training, recruit the best among new teachers, implement the best instructional programs, and rigorously evaluate existing programs.

SOURCES

This report contains the most accurate and current data for WCPSS and comparison LEAs available at the time of publication. Published sources of data were used, except in a few instances in the 1997-98 year, as noted below.

Figures 2 and 3: Local, state, and federal per pupil expenditures are reported each year by the North Carolina Department of Public Instruction (NCDPI) for each LEA in a *Statistical Profile* publication. Per pupil expenditure is computed only for current expense expenditures connected with the daily operation of schools (excluding community services, Head Start, adult education, and inter/intra fund transfers) by using final ADM figures in the denominator. "State" and "Federal" expenditures are the amounts spent for education from the budgets of state and federal governments, respectively, while "Local" expenditures are regarded as all expenditures not funded by state or federal governments.

Figures 4-9: Values for the first month ADM; number of teachers, administrators, supervisors and consultants; racial composition of student population; number of students with disabilities; and number of AG students are reported each year by the NCDPI for each LEA in the *Statistical Profile* publication. The opening of new WCPSS schools in the 1990s was measured by noting the year in which the school first appeared in the annual WCPSS directory listing of all schools.

Figures 1 and 10-21: EOC testing in grades 9-12 began in North Carolina with administration of the Algebra I EOC test in 1985-86. EOG testing in grades 3-8 began in 1992-93. EOC and EOG test results are reported each year by the NCDPI for each LEA in a *State Testing Results* publication.

Figures 22 and 23: Dropout rates and SAT results are reported each year by the NCDPI for each LEA in a *Report Card* publication. The dropout rate collected in North Carolina is an unduplicated count. The 1997-98 dropout rate in WCPSS was obtained from NCDPI 1997-98 *Dropout Data*. The 1997-98 SAT results are reported by the NCDPI in its 1998 *SAT Report* publication. In North Carolina, percent participation on the SAT is calculated by dividing the number of 12th grade students who took the SAT by the seventh-month ADM for 12th grade students.

Area kids excel on computer test
Putting the youngest to the test
Teachers will monitor students' skills without the usual anxiety
SAT Scores

State of the System

WAKE COUNTY PUBLIC SCHOOL SYSTEM

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